Louisville Metro Air Pollution Control District

Form E01 - Emissions Inventory General Reporting Instructions

Contents

List of Emissions Inventory Instructions and Forms

The instructions below are in Microsoft Word 97-2003 format, except for E05, which is in Microsoft Excel 97-2003 format. The forms themselves, E20 through E99 are in Microsoft Excel 97-2003 format. The 2009 emissions inventory forms can be downloaded from our website at www.louisvilleky.gov/APCD.

Title of Document	New Form #	Old Form(s)
General reporting instructions, forms list, abbreviations/acronyms and definitions	E01	SAM1, 2A, 3 & 4
Instructions for petroleum product bulk terminals	E02	SAM 2B
Instructions for paint manufacturing operations	E03	SAM 2C
Non-VOC organic compounds list	E05	SAM 5
HAP classifications	E06	SAM 6
Boiler or other combustion process fuel usage	E20	SAM 20 & 21
Particulate matter-producing processes	E40	SAM 40A, 40B & 40C
Wet cooling towers	E44	SAM 40D
VOC solvent / product usage	E50	SAM 50A & 50D
Dry cleaning chemical usage	E51	SAM 50B
Small source product usage	E52	SAM 50C & 50E
Stage I gasoline dispensing throughput	E54	Stage I throughput form
Stage II gasoline dispensing throughput	E55	SAM 50F
Emission point/process air pollutant emissions	E90	SAM 30 & 35, parts of SAM 40A, B & C
Release point (stack/chimney/vent or fugitive release area)	E91	New
Plant-wide emissions summary and certification	E99	SAM 99D

Introduction

Louisville Air Pollution Control District (APCD), in compliance with the Clean Air Act Amendments and the Air Emissions Reporting Rule (40 CFR Part 51 Subpart A), conducts annual inventories of air emissions from point sources and periodic inventories of emissions from area sources, non-road mobile sources, and on-road mobile sources. An emissions inventory is a list of sources of air contaminants and, for each source, the amount of each contaminant emitted. State and local agencies are required to submit to EPA emissions inventories containing criteria pollutants and their precursors for "large" point sources annually and for "smaller" point sources every three years.

Data from the point source emissions inventory is provided to EPA's National Emissions Inventory (NEI) database. Analysis of emissions data may lead to a more thorough consideration of certain industries or certain emissions sources, it may provide the basis for the development or evaluation of control strategies, and it may serve as the basis for an evaluation of the effectiveness of regulations. It can serve as a basis for emission fees programs, permitting, and air quality assessments and can be used to develop new methodologies and techniques for estimating emissions (emission factors). Modeling can help us forecast future trends in air quality in the Louisville Metro area.

When entering any general information or data, please make sure all entries are clear and legible. Typing or printing is preferred to reduce confusion. Please fill in all blanks. If an item is not applicable to your plant or to the specific process covered by the form, then simply enter "NA" in the blank. Completion of all information is important, because accurate reporting may result in the reduction of future paperwork for emissions inventory completion.

Attachments may be included with your completed forms. Your company should provide all calculations or an explanation about the submitted data. If you decide to use attachments, please affix them securely to the appropriate forms. Identify each attachment page with the plant identification number, emissions year, company name, and the "E" form number to which it pertains. Also indicate on the form that there is an attachment with enough identifying information on both to make reattachment possible if they become separated.

APCD is in the process of automating its database to assist in its federal emissions inventory submission process. Please feel free to provide any comments or suggestions on this reporting package that you think would aid us in making improvements to material content, or that would make the process clearer and easier in the future. Our goal is to assist you in the preparation of an accurate emissions inventory, and to reduce the paperwork process. All suggestions are welcome.

What's New?

- The table above lists the new set of emissions inventory forms. These "E" forms replace the "SAM" forms required in earlier years. EPA and APCD have updated their reporting requirements and which has led to reconfiguring and updating the forms.
- For your convenience all the instructions have been converted to a Microsoft Word format and the forms have been converted to a Microsoft Excel format.
- Form E90 is a new form for general information about each "emission point" (a process, piece of equipment, group of equipment, or part of a process) as defined in the plant's operating permit. An "emission point" as defined in the permit should not be confused with a "release point" such as a stack

or vent. This form allows you to enter this information only *once*, instead of in multiple places. **Please fill out one copy of this form for each emission point.**

- The new Form E91 is for air pollution release points (stacks, chimneys, vents, leaks/fugitive emission locations). EPA requires new information that may not be on your operating permit. This form needs to be completed one time for each release point; it is not expected that you will need to submit it in subsequent years unless you make changes to a release point. **Please fill out one copy of this form for each release point.**
- The three particulate matter forms SAM 40A, 40B and 40C have been combined into a single form, E40.
- The boiler fuel usage form SAM 20 and the combustion process fuel usage form SAM 21 have been combined into a single form, E20.
- The VOC solvent/product form SAM 50A and the VOC bulk handling form SAM 50D have been combined into a single form, E50.
- The VOC forms for small sources SAM 50C and the body shops form SAM 50E are combined into a single form, E52.
- Several instruction documents have been combined in this document, Form E01.
- Only **one copy** of the set of completed forms needs to be submitted.

What You Need to Do

- Emissions inventory reporting forms have changed significantly from last year to help meet new EPA requirements.
- **The 2009 annual emissions inventory report must be postmarked no later than April 15, 2010.** Failure to comply by this date subjects your company to a Notice of Violation and payment of penalties.
- Your facility should have received a letter identifying the emissions inventory forms that APCD believes you will need to complete for your facility. Please download the required forms from the APCD website at www.louisvilleky.gov/APCD. **APCD will no longer automatically mail the EI forms to facilities.** If you do not have Internet access, please contact Starlet Raj at (502)574-7346 as soon as possible and the necessary forms will be mailed to you.
- **Please note if you added or removed any new processes or release points in 2009, you may need additional forms.**
- For the accurate completion of the individual forms, specific instructions are included with them.
- Please contact your assigned APCD engineer for guidance or to answer questions that will help you complete this year's submission. Your facility letter contains this information.
- Your 2009 annual emissions inventory report submission should contain all emissions data, supporting documentation, and all calculations. Please include the method or source for the calculations if a method not already approved by the District is used. Upsets, downtime, fugitive emissions, and insignificant activity emissions should also be included in the calculations. If EPA emission factors are used, please use updated current values from AP-42 Fifth Edition and its current supplements which are available on the Internet at http://www.epa.gov/ttn/chief.
- The emissions inventory certification is required to be signed by the responsible official of the company.
- The original 2009 annual emissions inventory report should be mailed to:

LOUISVILLE METRO AIR POLLUTION CONTROL DISTRICT
ATTN: STARLET RAJ
850 BARRET AVENUE
LOUISVILLE, KENTUCKY 40204-1745

- Retain a copy of your completed report, along with all your supporting data and calculations so that it is readily retrievable in the future.

Terms and Acronyms

Term or Acronym	Definition
%A	Percent ash, usually weight percent ash content of fuels such as coal
%S	Percent sulfur, usually weight percent sulfur content of fuels such as coal
APCD	(Louisville Metro) Air Pollution Control District
Btu	British thermal unit
CAA	Clean Air Act
CAS	Chemical Abstract Service
Certifying individual	The individual (officer of the company) responsible for the completion and certification of the emissions statement, who will take legal responsibility for the accuracy of the statement or report
CO	Carbon monoxide
Control efficiency	The actual total efficiency achieved by the control device or devices, usually expressed in percent of pollutant controlled or destroyed; if actual efficiency is not available, the design efficiency provided by the device manufacturer or any limit imposed by the applicable permit, whichever is most restrictive, should be used
Diluent	A substance used to thin or reduce the concentration of another substance; when used with paints and coatings, a substance that changes the physical properties of the coating to enhance appearance or facilitate application
EIS	Emissions Inventory System; can refer to the US EPA Emissions Inventory System or to a state or local emissions inventory data system
EIS No. or EIS #	Emissions Inventory System identification number for a plant
Emission factor	An estimate of the rate at which a pollutant is released to the atmosphere as the result of some activity or process, proportional to the rate of that activity or process
Emission process	A process, activity or grouping of similar or interconnected equipment that can generate the same set or air pollutants whose emissions are controlled by a common air pollution control device or have no control device
Emission point	A process, piece of equipment, group of equipment or portion of a process at a plant where air pollution emissions can be generated; a unique identification number is assigned to each emission point at the plant in its operating permit.
Emission unit	A part or activity of a stationary source that emits or has the potential to emit a regulated air pollutant; this term is not meant to alter or affect the definition of the term "unit" as used in the Acid Rain program. An emission unit can contain one or more emission points.
Emissions, actual	The rate of emissions of a pollutant from an emissions unit for the calendar year or seasonal period. Note: Actual emission estimates must include upsets, downtime and fugitive emissions, and should be calculated by following an appropriate "emission estimation method".
Emissions, allowable	Total emissions based on the maximum permitted operating conditions and schedule
Emissions, fugitive	Releases of pollutants to the air that are not emitted through stacks, vents, ducts, pipes, or any other confined air stream, including equipment leaks, evaporative losses and releases from building ventilation systems
Emissions, potential	Total emissions based on 8760 hours of operation per year and the maximum equipment/process capacity after treatment by any pollution control devices that are required by a federally enforceable regulation
EPA	(United States) Environmental Protection Agency
gal	Gallon

Term or Acronym	Definition
HAP	Hazardous Air Pollutant
Hazardous Air Pollutant	Air pollutants that are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects, as defined in Section 112(b) of the Clean Air Act
ht or hgt	Height
hr	Hour
ID or I.D.	Identification, usually associated with a noun, such as source I.D.
lb.	Pound (unit of weight)
MSDS	Material Safety Data Sheet
Material balance	A technique used to estimate emissions from a source by accounting for the amounts, usually expressed in weight units, of one or more substances in all incoming and all outgoing process streams
MM	Million
MMCF	Million cubic feet
NAICS	North American Industry Classification System; iInformation is available at: http://www.census.gov/eos/www/naics/
Nitrogen oxides	All oxides of nitrogen, except nitrous oxide, expressed in terms of the molecular weight of NO_2
NOV	Notice of Violation
NOX or NO_X	Nitrogen oxides
Operating schedule	The time permitted processes or operations are being used; consisting of hours per day, days per week, and weeks per year
Oxides of nitrogen	Nitrogen oxides
Particulate matter	Any material, except uncombined water, that exists in a finely divided form as a liquid or a solid; such as dust, smoke, mist, fumes, and smog. Total suspended particulates (TSP) includes all particulate matter that is emitted to the ambient air. PM10 and PM2.5 are finer fraction of particulate matter.
Photochemical reaction	A chemical change caused by and/or modified by the effect of light on certain compounds
Photochemically reactive	A compound which readily reacts with other compounds or chemicals, in the presence of light, to form other compounds or cause certain chemical reactions
Plant	The physical property, including buildings and equipment, necessary to provide certain industrial or commercial processes
Plant ID number	A unique number assigned by APCD to identify each permitted plant in Jefferson County; formerly also called EIS number
PM	Particulate matter
PM10 or PM_{10}	Particulate matter less than or equal to 10 micrometers in aerodynamic diameter
PM2.5 or $PM_{2.5}$	Particulate matter less than or equal to 2.5 micrometers in aerodynamic diameter
Process rate	Quantity per unit time of any material or process intermediate consumed, or product generated through the use of any equipment, operation, or process. For a stationary internal combustion unit or any other fuel-burning equipment, this term means the quantity of fuel burned per unit time.
Release point	A physical location, such as a stack, chimney or vent within a plant where emissions can be released into the air; a unique identification number shall be assigned to each release point at the plant.
%S	Percent sulfur
SCC	Source Classification Code
SIC	Standard Industrial Classification: A set of four-digit numeric codes devised by the Office of Management and Budget (OMB) to classify establishments according to the type of

Term or Acronym	Definition
	economic activity in which they are engaged. Replaced by NAICS.
Solvent	A liquid capable of dissolving another substance. In painting or coating operations, a substance used to dilute a coating to improve physical characteristics. Solvents may be used for various cleaning operations.
Source	One or more process or manufacturing operations contained within a given contiguous property line
Source Classification Code	An eight-digit numeric code that identifies a particular process or operation that can generate or release air pollutant emissions
SAM	Strategic Air Management (historical EPA air pollution control program)
SO2 or SO_2	Sulfur dioxide
TAC	Toxic Air Contaminant
TAP	Toxic Air Pollutant
Thinner	A hydrocarbon or oleoresinous solvent used to reduce the viscosity of paints, lacquers, varnishes, inks, and other coating materials to the desired consistency just prior to application
Throughput	Amount of material stored and subsequently dispersed, processed, etc. per unit of time
Toxic Air Contaminant	A substance listed in APCD Regulation 5.23. (See APCD Regulations, Part 5.)
Toxic Air Pollutant	A substance listed in either APCD Regulation 5.11 (This list was taken from Appendix B of Kentucky Regulation 401 KAR 63:021.) or APCD Regulation 5.12 (This list was taken from Appendix B of Kentucky Regulation 401 KAR 63:022.). (See APCD Regulations, Part 5.)
TPY	Tons per year
TSP	Total suspended particulates (See particulate matter above.)
VOC	Volatile organic compound
Volatile organic compound	Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. Organic compounds that have been classified as non-VOCs by EPA, due to negligible photochemical reactivity, are listed in APCD Regulation 1.02 section 1.79 and/or Form E05. (See APCD Regulations Part 1.)
wk	Week
wt or wgt	Weight
yr	Year